

**Abstract**

The invention relates to a method for producing a large variety of photoresist structures, wherein a volume of photosensitive material (5) is exposed at least once by means of at least two light beams (1, 2), which are superposed inside the photosensitive material (5), and is subsequently subjected to a developing process, wherein the light beams (1, 2) penetrate at least one transparent optical element (3).

The optical element (3) is a polyhedron with planar or curved surfaces which largely prevents refraction of the light beams on the surface of the volume of photosensitive material (5) when the beams are fed-in and/or fed-out of the volume of photosensitive material (5), so that the angle of refraction for the light beams (1, 2) can be greater in the volume of photosensitive material (5) than the critical angle of the total reflection, which has a limiting effect without optical element (3).